

CHAPTER 6

Surface Transportation: “Tools” in the Privatization “Tool Box”

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§ 6.01 Background: Trends and Forces at Work in Surface Transportation

During the 1997 and 1998 Congressional debate over the reauthorization of the federal surface transportation program, the expert testimony left little doubt about the current state of U.S. highways, bridges, tunnels and transit facilities. At one time acclaimed by the world, these critical links to North American economic growth and personal mobility are degrading substantially, a fact policy makers are forced to acknowledge on a bipartisan basis. Among the contributing factors are increasingly deferred maintenance and rehabilitation work, with serious "pay me now or pay me later" consequences; population growth, particularly in urban centers, overwhelming the existing capacity of our regional transportation networks; the fact that consensus building and environmental procedures (required to authorize new facilities) add years to the time needed to approve new construction; the escalating costliness and protractedness of facility construction; the negative effect on gasoline tax revenues (the principal funding mechanism for surface transportation) of improved vehicle fuel efficiency; and Congress' failure to appropriate all available gasoline taxes for surface transportation despite the intended purpose of such taxes.

With the enactment of the Transportation Equity Act for the 21st Century ("TEA 21")¹ in November of 1998, Congress took a small step forward in addressing some of these problems. Most notably, the Act increased authorized

¹ Public Law 105-178, as amended by title IX of Public Law 105-206

funding for surface transportation to a guaranteed minimum of approximately \$198 billion for fiscal years 1998 through 2003, a significant increase over amounts authorized for fiscal years 1991 through 1997, the last authorization period.² While clearly a marked increase in funding, the recipients of these funds—the state, regional and local agencies responsible for owning, developing, operating and maintaining these facilities—knew not to celebrate. Simply put, the job of bridging the gap between transportation needs and available resources is exponentially greater than the available public resources, even as supplemented by TEA-21.

The state departments of transportation, turnpike agencies and regional transit agencies charged with meeting this immense task are in many cases (not unlike the private sector) stretching the dollars they have available, reinventing themselves to respond to their customers—the traveling public—and finding new “tools of the trade” to accomplish these important goals. Many of these tools involve creating and establishing new working relationships with the private sector, some unique to this field and some borrowed and adapted from other industry sectors. It is this “toolbox” we consider to represent “privatization” in today’s surface transportation sector, domestically and abroad.

The purpose of this chapter is to alert legal practitioners in the field to some of the key tools the public sector is developing and using, to describe the circumstances under which the tools are used, to point out some of the challenges in using each tool, and to provide some examples of where and how the tool has already been, or is currently being, used.³

Several caveats should be kept in mind.

- First, as long-time legal advisors of transportation agencies know well, the law governing their work is not widely understood or taught. Practitioners who feel their experience in the power, aerospace and private construction fields is directly transferable to transportation public works are in for a surprise.
- Second, the “privatization” tools we describe in this chapter represent a substantial departure from the established practices of most state and local transportation agencies. Attorneys counseling clients with respect to such transactions will be faced with substantial new challenges affecting their clients’ most important and biggest dollar projects.

² Information obtained from the FHWA’s Web site: <http://www.FHWA.dot.gov/tea21/>.

³ There are a number of tools in the toolbox which space has not permitted us to cover. These include:

- joint development of real property originally acquired for transportation, but which can be put to other compatible and complementary uses, such as residential and commercial development around transit stations;
- co-location of telecommunications facilities, such as cell towers and fiber optics conduit, in transportation rights of way;
- state infrastructure banks, which offer credit in ways similar to the TIFIA program described in § 6.09 *infra*; and
- ancillary revenues, such as corporate partnering arrangements which permit advertisers to utilize transportation facilities and/or users to position themselves favorably in the commercial marketplace.

- Third, the best forms for these "tools" will not utilize the same terms and conditions found in contracts or financing documents with which most attorneys and their clients are familiar. While certainly important, such documents should be considered alongside others incorporating entirely new terms and conditions arrived at after substantial commitments of time and resources by a pioneering few.

- Fourth, the role of agency counsel in privatization transactions is frequently much more hands-on than in traditional work. What is normally left to non-lawyer contract specialists and traditional engineering consulting firms may be best directed to a combination of technical specialists and legal advisors qualified directly in the type of tool being employed.

- Fifth, while it is true that the law of each jurisdiction is unique, we have found it also true that from jurisdiction to jurisdiction there are more commonalities than not in the issues privatization tools create. Consequently, it is quite possible that an issue perceived early on as a potential "fatal flaw" may well have arisen elsewhere and been resolved in ways that could be transferable.

- Sixth, it has become apparent to us that transportation practitioners in this fascinating and arcane field simply do not have enough opportunities to share experiences. Maybe the best advice we can impart is that, when a client considers embarking on a privatization transaction, one should seek out peer practitioners in those states that have pioneered the tools. Often this effort will be met with enthusiastic offers to share advice, war stories, "lessons learned" and referrals to helpful resources.

§ 6.02 The "Unprivatized Norm"

In order to understand the concept and utility of the "privatization toolbox" one must first have a basic understanding of the traditional way surface transportation projects are developed, owned, maintained and financed. The most prominent features of this norm are the traditional design-bid-build project delivery method; pay-as-you-go contract funding; and use of government employees to operate and maintain facilities.¹

With the traditional design-bid-build approach, the role of private companies has been generally limited to (1) serving as government consultants, hired primarily on the basis of qualifications, and (2) acting as independent contractors to provide construction services, equipment and materials, primarily pursuant to low-bid contracts. Design and other professional services are contracted for separately from construction work and equipment supply.

The government agency charged with delivering the transportation project typically assumes the lead in defining the project scope. In the initial stages of a project it will, through its own staff or consultants, undertake environmental permitting and impact reporting and then acquire necessary right-of-way and other real estate interests essential to the project. It will complete final designs for each of the project components (with its own staff, or with the assistance of private design engineering consultants) to the level required to prepare final plans, specifications and estimates for each component or element of the project. It then may divide the scope of work into relatively small packages and award contracts for construction, equipment and material supply pursuant to statutory low bid procurement procedures. The public agency generally relies on its designers to consider long term cost efficiency and efficient construction methods and standards, while the agency continues to make discretionary, subjective changes in the plans between the completion of preliminary engineering and final design. With design-bid-build, little if any construction work is started before most project design work is completed.

During construction, the agency supervises its construction contractor with its own staff or a team of construction management consultants, who oversee the work to assure quality of construction work and conformance to the contract specifications. The agency is generally responsible for overall project integration, and for enforcement of contractor warranties (if any). Because bid specifications must be drawn narrowly to permit competitive

¹ Most low bid statutes are "lowest responsible bidder" laws which require bidders to satisfy responsiveness and responsibility requirements tailored to the contract at hand. The responsibility criteria are generally set as low as possible to maximize competition. The statutes governing these procurements often do not permit "pre-qualification" or "short-listing," which are standards set to ensure that those allowed to submit bids are more than minimally qualified. Efforts to set "responsibility" standards higher than is felt necessary by members of the contractor community have resulted in bid protests. State laws vary on protest procedures, as does the potential scope and viability of such protests.

bidding, the agency typically assumes the risk of increases in cost due to design changes, design defects, differing site conditions, changes in applicable laws and regulations, *force majeure* events, and other circumstances. As a result, change orders are quite common in traditional design-bid-build projects, causing the final cost of the project and final completion date to vary significantly from those shown in original contract documents, and from engineers' estimates arrived at prior to final design.

Following completion, the government agency typically performs all maintenance, repair and renewal, generally utilizing its own forces. Some states, such as Virginia and Massachusetts, outsource a percentage of their maintenance activities, contracting with private firms to undertake major renovation and rehabilitation work on a design-bid-build basis.

Typically, public agencies cover the costs of the surface transportation work they award by annual allocations of local, state and federal revenues available that year. This is known as the "pay-as-you-go" method. Many states borrow against future state and local tax revenues earmarked for transportation, or borrow against existing toll revenue streams, although until the enactment of the 1995 National Highways Systems Designation Act bonding against federal allocations was highly limited.² Thus, within the "unprivatized norm," private contractors are seldom responsible for organizing or participating in project financing or bringing investment bankers to the table.

² See 23 U.S.C. § 122. The 1995 National Highways Systems Designation Act revised 23 U.S.C. to authorize Grant Anticipation Revenue Vehicle financings (so-called "Garvee Bonds"), permitting financing costs to be included in the definition of "construction costs" eligible for payment from federal funds. 23 U.S.C. § 101 includes bond related costs, principal, interest, issuance costs, insurance and other costs incidental to financing in the definition of "construction costs." "Bond related costs" is broadly defined to include bonds, notes, leases, credit enhancement fees, underwriter discounts, letter of credit fees, reserves, and contingencies.

§ 6.03 Design-Build Contracts**[1]—The “Tool” Defined**

Design-build, sometimes referred to as “turnkey,” is a project delivery method whereby a single private entity undertakes to provide the design of and to construct a project, usually for a fixed or guaranteed maximum price and subject to specific completion deadlines. This contrasts with the “unprivatized norm” of design-bid-build project delivery for public works projects in a number of important ways, and represents the “basic building block” on which other “tools” in the “privatization tool box” are built.

[2]—Potential Benefits to Owners

Design-build is not always the best means of project delivery, but it can provide significant benefits for certain project owners and certain types of projects, including the following:

- **Accelerated Completion.** Design-build usually results in accelerated completion of a project as compared with design-bid-build. This is due in part to the ability to start construction work before completion of the project design, combined with the fact that the design can be tailored to strengths of the construction firm instead of having to develop a design suitable for bidding by multiple firms.¹ In the case of the Alameda Corridor Transportation Authority, the plan of finance required the project to be completed within a specified number of months after bond issuance, and the Authority determined that a design-build approach was the only way to meet the schedule dictated by the plan of finance. Moreover, schedule acceleration is likely to result in an overall reduction in overhead costs. This reduction, combined with the designer’s incentive to keep construction costs down and the many opportunities for innovation that arise in the design-build process, may allow owners to obtain lower prices than they would obtain using the design-bid-build process.

- **Early Cost Certainty.** As transportation projects become more complex and require innovative financing, there is an increasing need to develop a reliable (even “bankable”) project budget very early in the development cycle. While design-build may or may not reduce the total cost of a project, a design-build price is obtained earlier in the project development process than bids based on a 100% design, facilitating financing at an earlier stage as well. In addition, due to a shift of risks and responsibilities from the owner to the design-builder, the design-build price is less likely to increase over the course of the job. For example, the San Joaquin Hills and

¹ The agency that developed the Alameda Corridor, a rail system connecting the ports of Los Angeles and Long Beach to downtown Los Angeles, determined that use of the design-build approach would allow the project to be completed approximately twelve months earlier than under a fast track design-bid-build process.

Foothill/Eastern Transportation Corridor Agencies determined that they would be able to develop a network of toll roads in Orange County, California, only if they used a design-build procurement methodology due to the agencies' lack of funds to proceed to complete design without issuing bonds, the fact that toll revenues were the only real source of funds to repay the bonds, and the fact that a market for such bonds existed only if the agencies could prove that the project would be completed within a specified schedule for a fixed price.

- **Shift Risks to Contractor.** Under the *Spearin* doctrine, the design-build approach requires the owner to warrant to the contractor that the design is constructable.² Under design-build, not only is this warranty eliminated, but owners may also obtain a broad warranty from the design-build contractor covering design work as well as construction work. By contrast, in a design-bid-build arrangement, the design professional typically makes no express warranties and is liable for design defects only to the extent they result from a failure to use reasonable care in performing professional services—and then only up to a cap. To some extent, other risks that are traditionally the owner's burden may also be transferred to the design-builder.

In general, in undertaking the risk allocation process, practitioners are well advised to prepare a detailed list of all project risks and then to allocate them among the owner, the design-build contractor and the insurer/surety. This risk allocation exercise is guided by a number of factors. It is useful to keep in mind an axiom to guide risk allocation: risks are generally best assigned to the party most able to take them. By that we mean that risk allocation has a cost associated with it; the party that has the most power over the subject matter is likely to be able to insure most efficiently against the risk. For example, certain pure *force majeure* and permitting risks may best be assigned to a government, while a design-build contractor is well positioned to insure against design and construction defects and (in some situations) unanticipated site conditions.

More specifically, the first step in risk management is to identify risks likely to affect the project, and to assess the likelihood of occurrence and the level of impact on the project associated with each type of risk. The second step is to assess possible measures that can be taken to eliminate or reduce risks. Following this evaluation, the project owner should consider whether the owner or contractor has the ability to control occurrence of the risk or to mitigate the impact of the risk, and should decide how to allocate risks so as to keep project costs down while providing appropriate incentives to the contractor to deal with the different situations that are likely to occur. If cost certainty is a critical concern (which is usually the case in projects that will be financed by revenues generated by use of the project following completion), it may make sense for the owner to transfer risks to the contractor even though a normal risk

² See *United States v. Spearin*, 248 U.S. 132, 39 S.Ct. 59, 63 L.Ed. 166 (1918).

analysis indicates that it would be more cost effective for the owner to retain responsibility. For example, in order to obtain revenue financing the owner might have to include a contingency in the project budget many times greater than the probable exposure associated with a particular risk. The financing costs associated with this situation (or the possibility that the project revenues will not support the amount required to be financed) may result in a decision by the owner to transfer the risk to the contractor for a price that is more than the amount of probable exposure but less than the amount of the contingency otherwise required.

The method used to procure a design-build contract can be critical to its success. While it is possible to use a low-bid approach, such an approach requires a high level of preliminary design which will offset some of the benefits to be obtained from design-build in terms of early cost certainty and innovation in design. On the other hand, if the owner provides only a performance specification, the cost of bidding the job may become prohibitive to the private sector. Further, many owners are reluctant to select design-builders based solely on price, believing that the design professionals' qualifications should be a major factor in the selection process. One way to deal with this concern is to pre-qualify bidders based in whole or in part on the qualifications of the design members of the team. However, the preferred method for awarding design-build contracts will in most cases be a "best value" or "price and other factors" selection process. While price can still be a heavily weighted factor in such a selection process, this method permits other factors important in project rollout, such as innovative contractor ideas for managing existing traffic disruption, to be taken into account.³

Another area of significant concern for most projects is the owner's ability to react to proposal prices that exceed the budgeted amount, and to deal with changes in contract requirements arising after the proposal due date. Owners that are subject to competitive bidding requirements have very little flexibility in such situations—if prices are too high they can either reject all bids and reissue the procurement package after redesigning or taking other appropriate steps to reduce the project cost, or they can award the contract to the low bidder and seek to reduce the price through change orders. One solution to this problem is to amend the procurement documents and request best and final offers. This approach is not legally available to all owners, and is extremely unpopular with the contracting industry due to concerns regarding information leaks once the initial proposals are delivered, combined with the internal costs associated with preparation of proposals. From the owner's perspective, the ideal selection process would permit the owner to proceed with negotiations

³ The Utah Department of Transportation's I-15 reconstruction project involved the potential to disrupt substantially the existing traffic on the facility, compounded by a construction period that offered little relief for commuters from continuous construction activity. To address this issue the agency designed its procurement to award points in the evaluation process for proposals offering innovative ways of preserving traffic mobility during the construction period. The Department awarded the project to the team providing the "best value," including a well-thought-out maintenance-of-traffic plan.

prior to award. This approach allows the owner flexibility to discuss changes in contract terms to obtain the necessary price reductions and allow any changed requirements to be incorporated into the contract, with much greater negotiating leverage than in a post-award change order negotiation. Contractors have a general preference for sole source negotiations (an option not usually available to public agencies) or a competitive selection process that does not involve pre-award negotiations, but given a choice between pre-award negotiations and best and final offers would tend to select the former.

While this potential problem exists for all competitively bid contracts, it is of particular concern for design-build contracts financed with non-recourse revenue bonds. In order to satisfy bondholders that such projects will be completed on time and within budget, a design-build contract often shifts to the design-build contractor certain risks in addition to those that contractors traditionally assume. For example, such contracts often provide for high liquidated damages for late completion, with but limited grounds for excusing delay. As a consequence, such contracts are likely to include large contingencies to cushion the contractor against the cost of some of the unusual risks assumed by it, which have the potential to take the project out of the financeable range. For example, the San Joaquin Hills Transportation Corridor Project included a \$25 million allowance in the contract for differing site conditions. The finance community insisted on including the entire \$25 million amount in the project budget, even though it was unlikely the entire amount would be needed. Ultimately the design-build contractor agreed to accept the risk of differing site conditions in exchange for a \$15 million price increase, thus reducing the amount necessary to be financed by \$10 million.

While an owner might enter into a contract with a low bidder and then seek to reduce the price following the award, doing so involves a risk of protest from the other bidders, and is also undesirable because the owner loses its leverage over the contractor by having awarded the contract. By contrast, a negotiation process allows the procuring owner to retain a competitive advantage with different bidders in revising the project's scope or contract terms, without having to resort to rejecting all bids and starting a new procurement.⁴ One way parties might minimize the amount that needs to be set aside to cover contingencies is to agree in the negotiation process to share the savings in the owner's contingency at the end of the project. Such an arrangement permits the owner to hold the contingency, while allowing the design-builder to reduce the amount of risk priced in its proposal.

[3]—Statutory Obstacles

State and local agencies can face statutory obstacles to implementing a design-build procurement. The issues include bundling of design and construction work into a single contract, use of "pre-qualification," selection procedures other than low bid, and scope of negotiation. Thus the first step

⁴ See Papernik & Smith, "By Design," Los Angeles Lawyer, July/August 1999, p. 34.

in implementing a design-build procurement is to examine the applicable procurement laws, and any restrictions on the procurement process that may stem from the project's sources of funds. Upon completing this due diligence, practitioners are usually faced with one of two prospects: either design a procurement to fit existing law, or design a procurement to fit the project and then seek a statutory amendment to authorize the procurement. Both approaches have been used.

A common problem procuring agencies face is being required to award construction contracts to the lowest responsible bidder and also to select design contractors on the basis of qualifications.⁵ In the design-build context, the contractor is serving both functions. This dichotomy of applicable law arises from different goals underlying the mandated procurement approaches. Many state legislatures have a strong preference for price-based selection as a means to enhance competition, and to prevent corruption and undue influence in public procurements. In contrast, underlying the design contractor laws is the belief that designers must exercise independent professional judgment so as to ensure public safety.⁶ Some procuring agencies can resolve this tension only through legislative changes; others find they can lawfully proceed by combining a pre-qualification or shortlisting first step, which is entirely qualifications-based, and a low bid second step.

To the extent the contract will be funded with federal funds, Title 23 of the United States Code⁷ (implemented by the Federal Highway Administration⁸) restricts design-build contracting for highways and Title 46 of the United States Code⁹ (implemented by the Federal Transit Administration¹⁰) restricts its use for transit facilities.¹¹ Both agencies have, however, developed a means

⁵ See, e.g. Cal. Pub. Contract Code § 10122; Cal. Gov't Code § 4526. Some states have created other idiosyncratic obstacles. For example, state agencies in California generally must negotiate first with the best qualified design firm and, if negotiations fail, with the next best qualified design firm (Cal. Gov't Code § 4528); and are also required to prepare "full, complete, and accurate plans" before entering into construction contracts (Cal. Pub. Contract Code § 10120).

⁶ See Heisse, ed., *The Design/Build Process: A Guide to Licensing and Procurement Requirements in the 50 States and Canada* (1997).

⁷ 23 U.S.C. § 112.

⁸ See 23 C.F.R. § 635.104.

⁹ 49 U.S.C. Chapter 53.

¹⁰ See 49 C.F.R. Part 18.

¹¹ The FTA generally requires that "new start" transit projects comply, among other things, with its Third Party Contracting Guidelines. These guidelines present certain practical, though solvable, difficulties in carrying out a design-build procurement. The predecessor to TEA-21, known as the Intermodal Surface Transportation Efficiency Act, authorized the FTA to carry out the National Turnkey Demonstration Act, selecting five design-build projects to be evaluated on the basis of the procurement used for project delivery. The selected projects were the BART extension to the San Francisco International Airport, the Los Angeles Union station project, the Baltimore Central Light Rail Extension, the Tren Urbano (Puerto Rico) transit project, and the New Jersey Hudson-Bergen project.

to permit design-build.¹² In fact, TEA-21, enacted in 1998, directed the FHWA to adopt a new rule permitting design-build to be effective as of 2003.

[4]—Examples of Design-Build in Practice

A few examples of design-build projects include:

Alameda Corridor Transportation Authority Mid-Corridor Design-Build Project. The Alameda Corridor Transportation Authority is a joint powers agency formed solely to develop a twenty mile long, multiple track rail system to link the rail tracks at the Ports of Los Angeles and Long Beach with the central rail yards near downtown Los Angeles. The Mid-Corridor segment stretches approximately ten miles from Santa Fe Avenue in Los Angeles south to State Route 91 in the City of Compton, and includes a double track segment to be built in a thirty foot deep, fifty foot wide trench parallel to Alameda Street. The Authority used a design-build approach in order to obtain a project delivery schedule that was consistent with its plan of finance. In 1998 the Authority awarded a \$712 million design-build contract to The Tutor-Saliba Team (a joint venture among Saliba Corporation, O & G Industries, Inc., Parsons Transportation Group and HNTB Design/Build, Inc.) on the basis of "lowest ultimate cost."

Utah Department of Transportation I-15 Reconstruction Project. The I-15 Reconstruction Project involved reconstructing and widening approximately sixteen miles of Interstate 15 in Salt Lake City. Faced with rapidly deteriorating structures affecting a lengthy part of a major thoroughfare, the Department conducted market studies to determine whether the public would prefer a relatively short construction period with major traffic impacts or reduced traffic impacts over a longer period. The public voted for a shorter period. When the International Olympics Committee named Salt Lake City as the site for the 2002 Winter Olympics, the Department quickly decided that design-build was its only alternative, and issued a request for proposals. In 1997, the Department entered into a \$1.4 billion contract with Wasatch

¹² The Federal Highway Administration approved the use of design-build for numerous highway projects through its Special Experimental Program 14 (SEP-14), which gave special approval to certain projects to use design-build even though such methodology does not comply with the requirements of Title 23. The Federal Transit Administration funded several design-build projects through a turnkey demonstration program. More recently, in its "Best Practices Procurement Manual," the FTA permits design-build as one of the permissible project delivery options. Regarding turnkey contracts, the Best Practices Manual states:

"A negotiated procurement process is strongly recommended for selection of turnkey contractors. Discussions between the owner and offerors facilitates a 'true meeting of the minds,' allows crafting of tailored solutions for contractor concerns, and achieves the optimum balance of risk and price." See <http://www.fta.dot.gov/fta/library/admin/BPPM/toc.html>.

Constructors, a joint venture of Kiewit Construction Company, Granite Construction Company and Washington Construction Company. The contract was awarded on a "best value" basis.

San Joaquin Hills Transportation Corridor Agency California State Route 73 Project. An \$810 million design-build contract for the San Joaquin Hills Transportation Corridor (SR 73) on a low bid basis to California Corridor Constructors, a joint venture of Kiewit Pacific Co. and Granite Construction Company. The project was financed in 1993 by toll revenue bonds. It was completed in 1997, 6% ahead of schedule (despite a sixteen month injunction affecting a large segment of the project) and with less than 2% cost growth.

Foothill/Eastern Transportation Corridor Agency California State Routes 231 and 261 Project. The Foothill/Eastern Transportation Corridor Agency in California awarded a \$740 million design-build contract for the Eastern Transportation Corridor (SR 231 and SR 261) and portions of the Foothill Transportation Corridor (SR 241) to Silverado Constructors, a joint venture of FCI Constructors, Wayss & Freytag AG, Sukut Construction, Inc. and Obayashi Corporation. The project was completed in 1999, a year (23%) ahead of schedule and with less than 5% cost growth.

Virginia Department of Transportation Route 895 Connector Contract. In 1998, the Virginia Department of Transportation executed a \$300 million design-build contract with FD/MK Limited Liability Company (Fluor Corporation and Morrison Knudsen Corporation) for a nine mile limited access tollway crossing I-95 and the James River. The contract was awarded through an unsolicited proposal submitted under the Commonwealth's Public-Private Transportation Act of 1995.

New Jersey Transit Corporation Hudson-Bergen Light Rail Transit System Project. In 1996, the New Jersey Transit Corporation awarded an \$800 million design-build-operate-maintain contract for a new light rail transit system to 21st Century Rail Corporation, a Delaware corporation affiliated with Raytheon.

New Jersey Transit Corporation Southern New Jersey Light Rail Transit System Project. In 1999, the New Jersey Transit Corporation awarded a \$615 million design-build-operate-maintain contract for the first phase of the South New Jersey Light Rail Transit System to Bechtel.

New Jersey Atlantic City/Brigantine Connector Project. A \$190 million design-build contract for a tunnel/tollway project was awarded in 1997 to a Yonkers/Granite joint venture. The project was financed in part by the New Jersey Department of Transportation, in part by the South Jersey Transportation Authority and in part by the developer, an affiliate of Mirage Resorts International.

By early 2000, at least seventeen other states and the District of Columbia have federally-funded or supported design-build projects approved or underway.¹³ The states include: Alabama, Alaska, Arizona, Colorado, District of Columbia, Florida, Indiana, Hawaii, Maine, Maryland, Michigan, Minnesota, New York, North Carolina, Ohio, Oregon, Pennsylvania, and South Carolina.¹⁴

¹³ These are the projects for which sponsors have sought and received approval under FHA Special Experimental Project No. 14 due to the use of federal funds and/or credit. Many others may be going forward without federal funds.

¹⁴ U.S. Department of Transportation, Federal Highway Administration, Briefing, FHA Initiatives to Encourage Quality Through Innovative Contracting Practices Special Experimental Projects No. 14 - (SEP-14), October 23, 1998.

§ 6.04 Exclusive Development Agreements**[1]—The Tool Defined**

Another “tool” in the “privatization toolbox” is the Exclusive Development Agreement (“EDA”), also referred to as a “franchise” or a “public-private partnership,” and outside the United States as a “concession”. While there are many variations on the basic theme, an agency utilizing an EDA will be departing from the “unprivatized norm” in three basic ways: the way it selects its developer, the rights and responsibilities it transfers to the private sector generally (and a single entity specifically), and the shifting to the developer of risks inherent in the project.

In a traditional or “true” EDA, the governmental agency will grant a developer an exclusive right, for a specified period, to develop, design and build a particular project. At the start, the developer will not be required to construct the project. Instead, the developer will be obligated to undertake certain tasks within a specified period, frequently to a “best efforts” level, which are intended to assess project feasibility. Typical tasks during this period might include preparation or funding of environmental assessments, preliminary design work, and traffic or ridership studies. The governmental agency may contribute funding towards the developer’s activities, but typically the private sector bears most or all of the cost of these preliminary activities. In some instances governmental agencies have significantly contributed towards preliminary project development costs. For example, the Virginia Department of Transportation used a state infrastructure bank (SIB) loan for the Pocahontas Parkway project, and the Washington Department of Transportation provided assistance for the Tacoma Narrows Bridge project. During this preliminary development process, if the specified milestones are not met by the developer, the agency can terminate the EDA and the project and project opportunity simply disappear. The developer is not subject to damages and is not deemed in “default”—it merely loses the continued opportunity to pursue the project.

At some point in the preliminary project development process, the developer’s obligation actually to construct the project may become firm and unconditional. The “trigger” or milestone causing this change varies, but it is often the issuance of the project’s record of decision, coupled with the closing of the project’s financing and the procurement of a fixed price construction contract. At that time, the project has ripened and the developer becomes obligated to build the project. Once this happens, this privatization tool has many similarities to a design-build method. The developer will (1) be required to design and construct the project within a fixed time schedule at a fixed price; (2) be required to deposit completion bonds or other security/collateral to secure the design/construction obligation; and (3) become subject to significant liability for failure to deliver the project in accordance with the approved schedule. As with a design-build contract, the agency will typically provide general oversight of construction to ensure that it complies with the terms of the EDA, applicable state standards, and other legal requirements. The major differences between the EDA and the design-build

method generally involve the scope of the developer's work—taking into account the preliminary project development work, it is more expansive than that of a design-build contractor. Also, the developer will often engage or procure a design-build contractor to prosecute the actual design and construction of the project, and therefore stand between the owner/agency and the design-builder.

Post-completion operation and maintenance obligations can (but need not) also come within the scope of an EDA. In many instances, the concession/franchise includes not only the opportunity (and later obligation) to design and construct the project, but also the requirement/opportunity to operate and maintain the facility after completion. The post-completion operation and maintenance period often terminates with the concession/franchise.

As "pure" EDAs have been financed on a taxable basis, little consideration has been given to (and little impact has been felt as a result of) IRS management contract rules. However, in the case of a tax-exempt financing variant of the EDA, the post-completion operation and maintenance aspect will be subject to the IRS management contract rules. For example, the operations and maintenance period will be limited to fifteen years or less, and the developer's compensation during the operations and maintenance period will require significant tax structuring.¹

In the case of EDAs financed on a taxable basis, developer compensation for the project is often derived from the project's revenue stream and guided by a "return on investment" approach. This approach typically takes the project's gross revenues, nets out operation and maintenance costs (excluding developer compensation), and then allocates the remaining revenues to the developer until the developer achieves a previously specified total return on investment. Prescription of a user fee/toll structure in the EDA (with maximum user fee/toll rates) may be employed as a variant of the total return on investment approach. Again in the case of EDAs financed on a taxable basis, the agreement may also include a promise by the agency not to construct or permit the construction of competing facilities. The agency may retain ownership of the facility (or the real property on which it is constructed) with a lease back to the developer, or it may transfer ownership to the developer with a reversion back to the government after the EDA terminates.

In the case of EDAs financed on a tax-exempt basis, the developer will typically receive a development fee at completion (with respect to the design and construction of the project), followed by "pay as you go" fees associated with any post-completion operation and maintenance. The ability of the agency and developer to structure the post-completion operation and maintenance compensation with incentives will be subject to the IRS management contract rules.

There are several ways to procure EDAs. Some jurisdictions can accept unsolicited proposals for projects (in other words, the private sector can unilaterally propose projects for the consideration of the agency). The Virginia

¹ See § 5.03[2] *supra* for a discussion of the IRS rules.

Department of Transportation and the Texas Turnpike Authority can do this. Other jurisdictions have a similar power allowing them to request or "call for" unspecified projects. Once the "call" is made, the private sector can propose any project that falls within the generally expansive and flexible request. The State of Washington used this approach in the case of the Tacoma Narrows Bridge project, and in California Caltrans used it in the early 1990's for its AB 680 franchise program. Other agencies have used the EDA method by issuing a request for proposals on a specific project. The Texas Turnpike Authority used this approach for its US183-A and SH 130 projects, as have the States of Massachusetts for its Route 3 North project and South Carolina for its Greenville Connector project.

Irrespective of the procurement method utilized, the agency must evaluate proposals based on the independent merit of the submitted project concepts against predetermined criteria, as well as on the proposer's technical, management and financial strength.

[2]—Potential Benefits to Owners

The EDA offers many of the same benefits to owners that the design-build contract does. Early completion, early cost certainty, the shifting of various risks to the contractor and acceleration of the determination of the project budget, all benefits of the design-build approach, are similarly achievable with the EDA.

However, the EDA can create additional benefits to owners. EDAs procured through unsolicited proposals or "calls" for proposals afford the owner agency the ability to further exploit the innovation and creativity of the private sector, which may propose or suggest suitable and beneficial projects the public sector might not have thought of. This valuable benefit is further enhanced by the limited funding contributions required of the public entity in the beginning stages of project development under an EDA. The private sector generally spends the time and funds necessary to turn the proposed ideas/project into reality, with failure sometimes meaning no more than lost time and minimal expenditure of resources by the owner.

[3]—Statutory Obstacles

Statutory obstacles to EDAs are similar to those encountered with respect to design-build contracts. In addition, many states or agencies may not be authorized to accept unsolicited proposals or make a "call" for projects.² Both these powers enhance the usefulness and attractiveness of the EDA tool, allowing for maximum utilization of private sector ideas and innovation.

² For example, the California Department of Transportation's requirement that highway construction be procured on a low-bid basis, and that design and engineering be awarded under a separate contract, necessarily precluded it from seeking or accepting such proposals. In 1989 the California Legislature, recognizing that public sources of revenues to provide an efficient transportation system had not kept pace with growing needs, adopted AB 680, adding Section 143 of the California Streets and Highways Code, to permit Caltrans to seek proposals for and select four transportation demonstration projects on an EDA basis.

[4]—Examples of the EDA in Practice

Examples of EDAs include Washington's Tacoma Narrows project, South Carolina's Greenville Connector project, Virginia's Pocahontas Parkway and Dulles Greenway Toll Road projects, Massachusetts' Route 3 North project, and Texas' Camino Colombia Toll Road project, where exclusive development agreements are being (or have been) used by public and private sector project sponsors. EDAs also figure prominently in the SR 91 and 125 projects, and the SR 57 toll facility, in California.

§ 6.05 Long-Term Warranties

[1]—The Tool Defined

A warranty is defined as "[a] promise that certain facts are truly as they are represented to be and that they will remain so, subject to any specified limitations."¹ For a variety of reasons contracts to develop transportation projects historically have not used warranties, or at best have used warranties of only limited duration and coverage. In many cases this may be a prudent economic decision. An owner may feel its program of managing design and construction, together with the use of quality contractors, make it unnecessary and too expensive to seek long-term warranties from the private sector. This section addresses a tool with which agency owners in effect "buy" from the private contractor developing a transportation facility a warranty of the quality of the constructed project. This tool can be combined with a long-term asset maintenance agreement.

Warranties of quality can either be warranties of workmanship or warranties of performance. Warranties of workmanship are appropriate when an owner mandates the use of final design specifications. A design specification describes in precise detail the materials to be used and the manner in which the work is to be performed. The contractor has no discretion to deviate from the specifications. Workmanship warranties typically warrant that:

- materials and equipment furnished under the contract will be of good quality and new unless otherwise required or permitted by the contract;
- the work will be free from defects not inherent in prescriptive specifications required or permitted by the contract;
- construction will be performed in a workmanlike manner; and
- the work will conform with the requirements of the contract.

Warranties of performance measure performance against a stated set of measurable standards, and are appropriate when performance specifications are set forth. A performance specification sets forth the objective or standard that the contractor is to achieve, but leaves the contractor responsible for selecting the means and methods of completing the work. In order for the contractor to be in a position to provide such a warranty, it generally has to control the final plans and specifications.

Under the *Spearin* doctrine,² an owner supplying a design gives the contractor an implied warranty that the design is constructable. On the other hand, if the contractor provides the design, not only is this warranty by the owner eliminated, but owners may also seek a broad warranty from the contractor covering design work as well as construction work. Such a warranty would include the contractor's warranty that the project is free from design defects, errors and omissions, and that the project is fit for use for its intended purpose.

¹ Black's Law Dictionary (5th ed. 1979).

² United States v. Spearin, 248 U.S. 132, 39 S.Ct. 59, 63 L.Ed. 166 (1918).

[2]—Potential Benefits to Owners

Owners often perceive the following benefits of long-term warranties.

- The major benefit anticipated by owners is increased quality.
- The anticipated increase in quality is expected to lower life-cycle costs.³
- Warranties, used in association with performance-related specifications, encourage contractor innovation while reducing the owner's risk.
- Warranties reduce the owner's inspection, oversight and contract administration responsibilities. This transfer of responsibility to the contractor helps many state departments of transportation that cannot adequately provide these services due to reductions in personnel.
- Warranties provide the contractor with a steady stream of revenue to address operations and maintenance.
- Projects that can be developed only through the use of innovative financing and procurement techniques require that a budget be developed and cost certainty be achieved very early in the process. Long-term warranties enable the owner to achieve some certainty with respect to the long-term maintenance costs of a project.

[3]—Statutory Obstacles

State law generally specifies the extent to which an owner agency may include warranties in its transportation development contracts. In some cases, legislatures have authorized pilot or demonstration programs within which a warranted project may fit.

To the extent a particular contract will be funded with federal funds, federal law also applies. Prior to 1991, in order to avoid using federal funds to pay highway maintenance costs⁴ the Federal Highway Administration ("FHA") had a long-standing policy restricting the use of warranties in federally aided projects to electrical and mechanical equipment.⁵ Under Special Experimental Project No. 14 ("SEP 14"), Innovative Contracting Practices, the FHA approved the use of design/build/warranty (DBW) contracts for the building of highways or highway components, on a trial basis to evaluate and document innovative contracting practices that have the potential to

³ This is becoming more important as governments become more accountable, and as the finance side of governments exerts more control. In June 1999 the Governmental Accounting Standards Board issued Statement No. 34, which among other things will require state and local governments to report and depreciate infrastructure assets (including roads and bridges) in their financial statements. There is a significant exception if the state or local government demonstrates it can maintain an asset under an asset management system.

⁴ Use of federal funds violates federal law making it the duty of the state highway department to maintain, or cause to be maintained, any federal aid highway project constructed under 23 U.S.C. § 116.

⁵ See <http://www.fhwa.dot.gov/infrastructure>.

reduce life-cycle costs to state agencies while maintaining product quality and an acceptable level of contractor profitability. The FHA issued a Warranty Final Rule in the Federal Register on April 19, 1996. Under that Rule:

- With the Division Administrator's approval, a National Highway System project may include a warranty provided that the warranty covers a specific construction product or feature, but may not cover items over which the contractor has no control.
- General project warranties are not permitted unless the contractor had control of all design decisions and features. Routine maintenance items remain ineligible.
- In federally aided projects located off the National Highway System, warranties may be used in accordance with state procedures.⁶

[4]—Examples of Long-Term Warranties in Practice

Several states have developed pavement warranty programs and others are developing them. A few examples include:

Wisconsin Department of Transportation. In 1997 the Wisconsin Department of Transportation, in conjunction with the Wisconsin Concrete Pavement Association, developed a five year modified workmanship warranty specification for concrete pavement. The warranty requires either a single five year term warranty bond, or extension of the construction bond for one year plus two consecutive two year bonds.

Michigan Department of Transportation. Michigan currently has a Special Provision for New/Reconstructed Concrete Pavement Warranty on I-75 (dated 1998) and a Special Provision for Pavement Performance Warranty (dated 1996) for flexible and composite pavements. Both warranties are for five years. The concrete warranty is a modified workmanship warranty. The contractor is required to furnish to the department a single five year warranty bond in the amount equal to five percent of the contract amount, plus supplemental performance and lien bonds covering any corrective action being performed. The performance warranty requires annual payments in the total amount of ten percent of the contract price to be made when the pavement meets performance standards.

Ohio Department of Transportation. The Supplemental Specification 884 Concrete Pavement with Warranty, dated in 1999, is a seven year performance warranty for Portland cement concrete pavement on a prepared surface. The warranty requires a seven year maintenance bond in the amount of forty percent of the price bid for the entire pavement area that is to be warranted.

⁶ Under present policy, (1) a state highway administration may include warranty provisions in National Highway System construction contracts only if the warranty provision is for a specific construction produce or feature. Items of maintenance not eligible for federal participation shall not be covered, and (2) all warranty requirements must be submitted to the Division Administrator in advance for approval. 23 C.F.R. § 635.413.

Illinois Department of Transportation. In response to legislation, the Illinois Department of Transportation has developed pavement warranties for bituminous concrete pavements and concrete pavements, intended to be used for contracts to be let in early 2000 and thereafter.

In addition, the following major projects included warranties as part of the contract:

Utah Department of Transportation I-15 Reconstruction Project. The I-15 Reconstruction Project is a project to reconstruct and widen approximately sixteen miles of Interstate 15 in Salt Lake City, Utah. In 1997, the Department entered into a \$1.4 billion contract with Wasatch Constructors, a joint venture of Kiewit Construction Company, Granite Construction Company and Washington Construction Company. Under the design-build contract, the Department has the option to require the contractor to perform significant maintenance and repairs (subject to warranty) for up to ten years after substantial completion. The proposal price was provided in 1997 dollars and will be escalated based on changes in the Federal-Aid Highway Construction Urban (Composite) Index. The Department will perform routine maintenance functions. This is the first design-build highway contract in the United States to incorporate a long-term maintenance component.

New Mexico Corridor 44 Contract. In 1998 the New Mexico State Highway and Transportation Department awarded a contract to Mesa PDC, L.L.C., a development company owned by Koch Materials Co., under which Mesa will provide design and construction management services for widening NM Route 44 from two to four lanes over approximately 125 miles. Mesa will perform no construction work. Upon completion of these improvements Mesa will provide a ten year structures warranty and a twenty year pavement warranty for the highway. The prices for the warranty are lump sum amounts. The warranty does not include routine maintenance.

§ 6.06 Outsourcing Preservation of Highways**[1]—The Tool Defined**

State agencies have traditionally maintained state highways through direct employees, although some state highway departments have contracted out individual functions (such as pothole repair and roadside mowing) to private contractors on a short-term basis. A few states have departed from this “unprivatized norm” by experimenting with more innovative methods of providing comprehensive “asset management services” through long-term contracts with private sector companies. For example, in 1996 Virginia’s Department of Transportation executed an agreement with a private company to provide total maintenance services for over 250 miles of Interstate Highways for an initial term of five years. In 1999, Massachusetts authorized its Highway Department to seek proposals from private developers for reconstruction of Route 3, including assumption of full maintenance responsibilities for the highway for up to thirty years.

[2]—Issues to Address**[a]—Scope of Work—Prescriptive vs. Performance Based**

Comprehensive asset management programs differ from other forms of contracting for maintenance services in two major respects. First, the contractor is responsible for a broader range of services than under traditional outsourcing. Second, the contractor is required to meet general performance standards, rather than merely to perform specific activities at specific times.

Highway maintenance includes more than just repairing potholes. It also includes such diverse functions as maintenance and upgrading of signs, signals, lighting, and stormwater systems, landscaping and mowing, and repair of shoulders, ramps and interchanges. Bridge inspection and repair is a critical function, and is subject to detailed state and federal standards. An outsourced contract may cover this broad range and may even include responsibility for frontage roads, rest areas and weigh stations. Virginia included snow and ice removal within the contractor’s scope of services.

The factor that most distinguished the Virginia approach was that, unlike traditional private maintenance contracts, the contractor was required to meet specified “outcome and performance standards,” regardless of whether the work required was considered to constitute ordinary maintenance, preventive maintenance or replacement. The contractor has considerable flexibility in determining what level of work is required to meet the outcome and performance standards over the term of the agreement. Continual reporting by the contractor and inspections by the state assure that the performance requirements are being met on an ongoing basis.

[b]—Capital Asset Replacement Programs

If a contract (such as that envisioned for Massachusetts’s Route 3) is to extend for a substantial period of time (say, fifteen to thirty years), major capital asset replacements must be contemplated. Typically, pavement requires

complete resurfacing every seven to twelve years. Bridge decks will need reconstruction, and signage will need periodic replacement. Budgeting for such major periodic expenditures and control over timing and extent of work are critical issues in long-term maintenance contracts.

[c]—Compensation

Under a long-term agreement such as Virginia's, the state agrees to pay the contractor a fixed annual fee for the term of the agreement. To protect the contractor from the impact of rising costs due to inflation, the annual fee may be fixed so as to take into account an assumed rate of inflation, or it may escalate in accordance with appropriate labor and materials indices published by the U.S. Bureau of Labor Statistics.

Given the long-term nature of the agreement, it is reasonable to provide the contractor some protection from unforeseen circumstances. When a contractor takes over an existing highway (rather than maintaining a new or rebuilt structure), there may be unexpected conditions that even the most thorough initial inspection will not have disclosed. The contractor also needs protection against changes in state or federal laws or standards that increase the cost of compliance. Allocation of risk of damage to the facilities by third parties also needs to be addressed, ranging from "routine" damage to guard rails to cataclysmic damage to bridge structures caused by a vehicular or vessel collision.

[d]—Weather Conditions

Although weather conditions are typically regarded as unpredictable, it may be possible to have the contractor assume responsibility for snow and ice removal on a fixed fee basis. In Virginia, the contractor was able to obtain insurance against unusual snow and ice occurrences. On the other hand, extensive damage from floods, hurricanes or major earthquakes is a risk that more appropriately may remain with the state.

[e]—Performance Bonds, Insurance and Indemnifications

As with a highway construction contract, the state should require that the contractor provide a performance bond, as well as a payment bond for subcontractors performing construction work. The amount of the bond, however, requires special consideration. A bond in the total amount of the contract for its entire term may be too expensive, or even unavailable. However, a conventional bond limited to year's fee may not provide the state with protection against increased costs over the term of the contract in the event a replacement contractor must be retained. The contractor may also want a cap on its own liability for non-performance. There are infinite ways to approach each situation to meet the parties' respective needs. The parties might agree on a bond that represents more than one year's fee but less than the whole contract amount (say, for example, 25% of the contract value), with a requirement that the bonded amount escalate with an index just like the contract price. Similarly, with respect to liability, the parties may agree upon reasonable limits in the contractor's

exposure to remote, speculative or consequential damages that may arise from the contractor's nonperformance, but that are not foreseeable or contemplated by the parties.

Insurance is a key element of long-term asset management contracts. The contractor should have comprehensive general liability and automobile insurance under which the state should be an additional insured. The state will also require that the contractor have workers' compensation insurance. Builder's risk insurance will be needed for any construction work during the term of the agreement. The insurance provision should address the amount of deductibles and whether any deductibles or self-insured retentions must be exceeded before the state is entitled to compensation for its claim from the insurer.

The indemnification provisions will address the contractor's agreement to hold the state harmless from any third party claims due to the design, permitting, maintenance, reconstruction, repair, restoration or replacement of any asset by the contractor or a subcontractor. The state should indemnify the contractor for liability for pre-existing hazardous substances found in or under the highway. The contractor, however, will remain liable for proper use and disposal of any hazardous substances that it brings onto the site or is otherwise responsible for removing under the contract (such as lead paint on bridges).

[3]—Institutional and Statutory Obstacles

Comprehensive outsourcing of management and performance of highway maintenance functions may face substantial institutional and legal barriers in many states. Some states have laws that simply prohibit or restrict the "contracting out" of services to private entities. In others, such as California, civil service protection laws have been interpreted to prohibit contracting out if state civil service employees can competently perform the same services.¹

¹ See, e.g.:

Alabama: Hall v. City of Tuscaloosa, 421 So.2d 1244, 1249 (Ala. 1982).

Alaska: Moore v. State Department of Transportation, 875 P.2d 765, 768-773 (Alaska 1994).

California: Professional Engineers in California Government v. Department of Transportation, 15 Cal.4th 543, 936 P.2d 473, 63 Cal. Rptr.2d 467 (Cal. 1997); California Const. Art. 7, § 1 *et. seq.*

Colorado: Colorado Association of Public Employees v. Department of Highways, 809 P.2d 988, 992-998 (Colo. 1991).

Louisiana: Jack A. Parker & Associates, Inc. v. State of Louisiana, 454 So.2d 162, 165-167 (La. App. 1984).

Michigan: Michigan State Employees v. Civil Service Commission, 141 Mich. App. 288, 367 N.W.2d 850, 852 (Mich. App. 1985).

Nevada: University of Nevada v. State Employees Association, Inc., 90 Nev. 105, 520 P.2d 602, 604-607 (Nev. 1974).

New York: Nassau Educational Chapter v. Great Neck Union Free School District, 445 N.Y.S.2d 812, 813, 85 A.D.2d 733 (N.Y. App. Div. 1981).

Ohio: Carter v. Ohio Department of Health, 28 Ohio St.3d 463, 504 N.E.2d 1108, 1109-1110 (Ohio 1986); Local 4501 v. Ohio State University, 12 Ohio St.3d 274, 466 N.E.2d 912, 914-915 (Ohio 1984).

Institutional and political barriers also exist, even where privatization of engineering and construction on a design-build basis is permitted. While time and money constraints can lead to acceptance of privatized construction methods, maintenance may be viewed as an "embedded cost" where the need to obtain private sector savings is less urgent. Public employees, who view privatization of maintenance as a threat to their job security, can wage intensive and costly battles in the courts and legislatures to prevent such programs from being implemented.

If a highway is financed with tax-exempt bonds, the contract must be structured to meet the terms of the IRS' so-called "management contract rules," set forth in Revenue Procedure 97-13.² Compliance with these rules ensures that the bonds will not be considered "private activity bonds" under the Internal Revenue Code. These rules will typically come into play in the case of revenue-generating toll roads that are financed with municipal bonds. The rules limit the term of the management contract to fifteen or fewer years, depending on the form of compensation.³

Pennsylvania: Stump v. Department of Labor & Industry, 154 Pa. Cmwlth. 471, 624 A.2d 229, 231 (Pa. Cmwlth. 1993).

Washington: Wash. Federation of State Employees v. Spokane Community College, 90 Wash.2d 698, 585 P.2d 474, 475 (Wash. 1978); Joint Crafts Council v. King County, 76 Wash. App. 18, 881 P.2d 1059, 1061-1062 (Wash. App. 1994).

² See § 5.03[2] *supra*.

³ See *id.*

§ 6.07 User Fee Financing

User fee financings, or "project revenue" financings, are transactions to finance transportation facility development in which the sole or primary source of debt repayment is revenue to be received from future operation of the facility.

While borrowing against the future revenues of a project to pay for its construction is a time-honored way of financing many kinds of privately owned facilities, such "start-up" financing for transportation has not been a significant part of the "unprivatized norm." In fact, until the early 1990's, start-up user fee financings were almost unheard of in the surface transportation sector. For a number of reasons, the market has begun accepting this type of credit. It is therefore not surprising that, because of limited federal and local funding sources for (and the high cost of) new construction, this tool has significant potential.

Project revenue financings may be undertaken at an early stage of project development, in which case the proceeds from the sale of bonds may be used to provide long-term financing for acquisition and construction, but it should be borne in mind that the Internal Revenue Code places restrictions on the length of time tax exempt proceeds may be outstanding before the proceeds are spent. Alternatively, acquisition and construction may be financed by private or public short-term debt, in which case the project revenue financing will provide long-term take-out financing for the acquisition and construction debt. In the case of up-front long-term debt, the bond purchaser needs to evaluate the construction risk and the operating risk (i.e., whether revenues from the project will be sufficient to pay the debt.) If take-out financing is to be raised after the project is near completion, the construction lender must evaluate both the risk of completion on time and within budget, and whether the project will generate sufficient revenues to attract a takeout loan large enough to pay off the construction loan in its entirety. In some cases, the construction loan and long-term financing are closed concurrently, so the construction lender is assured that the takeout financing will be available upon timely completion.

Normally in a financing that provides both construction and long-term financing there is capitalized interest on the bonds during construction and until the project is generating revenues. In a take-out financing issued at the same time a construction loan is made, a combination of capitalized interest and investment earnings on the escrowed bond proceeds is sufficient to pay debt service on the bonds until the construction loan is taken out and the project is generating revenues. The construction loan may or may not have scheduled payments during the construction period. If take-out financing is not issued until completion, the risk is born entirely by the construction lender.

Privatization of project design and construction provides several advantages in reducing completion risk for a project revenue lender. Design/build contracts offer more flexibility in the timing of design, right-of-way acquisition, mobilization and actual construction than does a traditional publicly bid project. The ability to alter the scheduling of these tasks under a single contract (which guarantees completion of the entire project by a certain date) gives the project

lender some comfort that it can be completed within the period for which interest has been capitalized and can meet assumptions made by the revenue study. The design/build contract can allocate to the contractor increased costs or delays in completion which may result from changes in governmental regulations, soil conditions and permitting. The contractor may be persuaded to accept subordinated project revenue debt in lieu of final payment or as consideration for change orders, providing an incentive to stay within budget and maintain quality of the final product. The contractor can be given a percentage of project revenues for a specified period if construction is completed earlier than scheduled. A private construction management firm can provide the necessary oversight and review of the appropriateness of disbursements based on percentage of completion, requests for change orders and scheduling of design and construction work.

Revenues from the operation of a transportation facility are derived in two ways. Patrons of the facility can be charged a fee for their direct use of the facility. These charges can be tolls or farebox charges that are paid either at the time of the use of the facility or on a monthly account basis. The amount charged can vary depending on the length of the trip, point of entry to the system, time of day, type of vehicle, or number of passengers. Privatization of toll collection can enhance a project's credit appeal in several ways. Private companies may offer the latest technologies available to collect the fees and are willing to provide guarantees of performance. Collection of tolls through an automatic vehicle identification system can reduce operating costs, increase efficient use of the facility and enhance consumer acceptance.

In addition to direct user charges, revenues can also be derived from charges levied for use of the assets other than for direct transportation purposes. For example, the right-of-way on which the facility is located can be leased to private fiber optic users or commercial real estate developers. Signage rights can be sold.

Buyers of project revenue debt make their decision to purchase the debt (and at what price, or interest cost) based on their evaluation of the likelihood that the project will produce sufficient revenues to pay operating costs and principal and interest payments, fund necessary operating and replacement reserves and produce "coverage"—a percentage of revenues over debt service to serve as a "cushion" against shortfalls. Demand for and revenues from a new transportation project are evaluated in a third-party study that considers the economic and demographic patterns of the service area, potential for development of competing systems, availability of "feeder" facilities, the mix of commuter, commercial and discretionary traffic, and the level of congestion on existing roads. For new transportation facilities that are designed as congestion relievers and do not enjoy a monopoly (for example a toll road adjacent to a freeway) the revenue study must consider whether and at what price potential patrons will use the facility to save time. The revenue study will also consider the time it will take for a transportation facility to reach a level of use at which it will generate sufficient revenues to produce "coverage," or "ramp up" risk, which is critical in structuring the repayment schedule for the debt.

With a forecast of revenues expected from the completed facility, assumptions can be made about the amount of debt that can be issued. The project revenue debt markets have established criteria under which a project's creditworthiness can be assessed. These criteria look to the amount of revenues available to pay debt service after payment of operating costs. The owner/operator of the facility must have the legal authority to set rates in an amount sufficient not only to cover operating costs and debt service, but also to generate excess "coverage" revenues. These excess revenues are needed to fund operating and replacement reserves, build additions or betterments to the project, and defease outstanding debt.

§ 6.08 Local Option Revenue Sources

In addition or as an alternative to project revenues, governmental fees and charges can serve as a source of repayment of transportation debt financing. Several of these revenue sources, such as developer fees, tax increment, and benefit assessments, bear a direct relationship to the facilities they are financing. Since they are levied against private businesses, these charges in effect constitute private financing of public transportation improvements with a governmental twist. The use of broadly based governmental charges (such as general taxes, sales tax revenues and motor vehicle fuel taxes) to pay for specific transportation improvements acknowledges the general social and economic importance of transportation facilities. Many transportation debt financing programs rely on a combination of project revenues and governmental levies to provide a source of repayment.

A number of states have granted statutory authority to local governments to levy fees on new private real estate development to pay for the cost of infrastructure improvements (such as transportation facilities) necessary to serve the new development. Some of the earliest developer fee programs in the United States were conceived as a way to finance local street improvements. These programs identify a needed improvement, estimate the cost of the improvement, establish an area the projected development of which is expected to generate the need for the improvement, set a schedule for payment based on the type and intensity of the proposed private development, and charge for subdivision map approval or issuance of a building permit. From a federal constitutional standpoint, there must be a close "nexus" between the improvement to be financed and those who will pay the fees to support the financing as well as the amount of the charge per landowner. Developer fees on their own are viewed as a highly speculative source of revenue. They are paid only if the developer proceeds with the private project—there is no pledge or lien upon real property to secure their payment. The total amount collected with respect to a particular parcel will ultimately depend on the number of units or square footage developed. Other conditions may need to be satisfied before development may proceed. The charge will be capitalized by the developer in the price of the finished unit, which may impact the marketability and ultimate success of the development.

A benefit assessment is another form of levy that imposes the cost of a needed improvement on those who will receive special benefits from it. Unlike developer fees, benefit assessments are levied against real property whether or not development of such property occurs. Assessments are paid in amounts, and according to a schedule, to coincide with repayment of principal and interest on the debt. The cost of the improvement to be financed is spread among property owners on the basis of the benefits received from the improvement. Benefits are often tied to potential development of the property and the corresponding generation of trips by such improvement, all of which generates the need for the improvement. Unlike a special tax, benefit assessments generally do not require a vote, since the assessment is tied to a special benefit to the property. However, in some jurisdictions, assessments may not be levied without a vote of property owners, with voting rights based on acreage.

Similar to assessment revenue financings, special tax bonds can be issued and sold to finance a specified improvement, payable from special taxes levied against a discrete group of property owners. Unlike assessments, in most jurisdictions a special tax needs to receive voter approval, and in some cases two-thirds voter approval is required. However, since special taxes are voter approved, special taxes do not need to be levied on the basis of direct benefits received by a particular parcel. Instead, special taxes can be determined on the basis of a formula, such as a per parcel tax or one that considers square footage of development or number of units. Undeveloped land can be taxed as well, on the basis of acreage. A special taxing district can be formed to pay the costs of a particular improvement or group of improvements. In some cases, special taxes can also be used to pay for improvements on a "pay-as-you-go" basis, or to pay operating costs associated with a particular improvement. Payment of the special tax is secured with a tax lien on the property, which under some enabling statutes is enforceable by nonjudicial foreclosure (such as would be available in the case of a mortgage or deed of trust).

Benefit assessments and special taxes are levied against a discrete group of property parcels that are formed into an improvement district by the local legislative body. The assessments and special taxes are generally levied on property tax bills and secured by the property and are not personal obligations of the property owners. Procedures for the formation of the improvement district and levy of the assessments require notice to the affected property owners and a hearing before the legislative body, and in some jurisdictions landowner approval. Special taxing districts often require voter approval as a condition of establishment, and in some jurisdictions voting in unimproved districts can be based on the amount of land owned in the prospective district or the size of the levy.

Another form of government revenue which can be used to pay the cost of needed transportation improvements is tax increment. Tax increment, whether derived from property taxes, sales taxes or even in some cases hotel or transient occupancy taxes, is the amount of general taxes received in a designated area over and above an established level. This incremental tax revenue from a particular project area that can be pledged to the repayment of infrastructure debt. The success of private businesses in the defined area to be served by the improvement will lead to the payment of higher taxes, and the increment in these tax receipts from the area serves as the source of revenue for repayment of the financing. Under many tax increment statutes, a finding of "blighted conditions" needs to be made as a condition to the creation of the area and the receipt of tax increment.¹ Under California's infrastructure financing district law, such a finding is not required, but only tax increment that would be payable to the public agency forming the district can be captured and used to repay indebtedness.²

¹ See *Berman v. Parker*, 348 U.S. 26, 75 S.Ct. 98, 99 L.Ed. 27 (1954).

² See Cal. Health & Safety Code § 33031 *et seq.*; Cal. Gov't Code § 53395 *et seq.*

As discussed above in connection with user fee financing, there are number of risks to a project lender associated with construction of the facility and its ability to generate revenues. To help reduce these risks and enhance the credit-worthiness of the project revenue financing, the public agency may establish a developer fee program, form an assessment or special taxing district, or designate tax increment that may be used to supplement shortfalls in project revenues, make operating subsidies or pay for a portion of the improvement costs. For example, the Orange County Transportation Corridor Agencies in California are entitled to receive developer fees collected under ordinances adopted by local agencies that are members of the toll road authority. Before toll road revenue bonds were sold, these fees were used to pay environmental study and early design costs associated with three toll roads. Developer fees were later pledged as security for repayment of toll road revenue bond issues. In one project, the developer fees were used to repay draws under a bank letter of credit, which in turn was used as credit enhancement for a portion of the principal amount of the toll road revenue debt. The bank providing the letter of credit was better able to evaluate the risk of repayment of principal from a source dependent on the pace of private development than were the buyers of the bonds.

§ 6.09 Federal Credit**[1]—Introduction**

As part of the Transportation Equity Act for the 21st Century,¹ commonly known as "TEA 21," Congress passed the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA).²

TIFIA established a new Federal credit program under which the Department of Transportation (DOT) may provide three forms of credit assistance—secured (direct) loans, loan guarantees and standby lines of credit—for surface transportation projects of national or regional significance. The authorizations for TIFIA through 2003 included \$10.6 billion in principal sums of credit instruments and \$530 million in "subsidy costs" (the cost of supporting the Federal credit, or in other words money to cover and reserve for estimated losses). Both amounts were allocated by year, in varying amounts.

The TIFIA program was designed to leverage federal funds by attracting private and other non-federal financing and investment in important national and regional surface transportation projects. The TIFIA program is a competitive program, with credit assistance awarded to those projects that score highest with respect to the TIFIA evaluation criteria. Both the public and private sectors, including state departments of transportation, transit operators, special authorities, local governments and private entities, may apply for TIFIA assistance.

TIFIA assistance does not count against a state department of transportation's allocated share of federal aid highway apportionment. TIFIA-eligible projects must have eligible capital costs at least equal to \$100 million or 50% of the state's federal aid highway apportionment, whichever is less.

[2]—Types of TIFIA Assistance

TIFIA assistance can take the form of secured (direct) loans, loan guarantees, standby lines of credit, or a combination of these.

[a]—Secured Direct Loans

A TIFIA loan is a debt obligation involving the DOT as the lender and a non-federal project sponsor as the borrower. Terms of the loans vary and are negotiated directly by the DOT but generally have the following characteristics:

¹ Pub. L. 105-178, as amended by the TEA 21 Restoration Act (Title IX of Pub. L. 105-206). The legislation is codified within 23 U.S.C. §§ 181-189, with supporting regulations appearing at 49 CFR Part 80.

² TIFIA appears as §§ 1501 - 1504 of TEA-21.

- *Use of Proceeds.* Proceeds must be used for eligible project costs or to refinance interim construction financing of eligible project costs (which refinancing can occur no later than one year after substantial completion of the project).³
- *Amount.* The principal amount may not exceed 33% of the reasonably anticipated eligible project costs.
- *Interest Rate.* Equal at least to the yield on marketable U.S. treasury securities of comparable maturity to the loan, as of the date of execution of the credit agreement.
- *Maturity.* No later than thirty-five years after substantial completion.
- *Repayment and Deferral.* Scheduled loan payments must begin no later than five years after substantial completion, but deferral is available, at the sole discretion of the DOT, for up to ten years after substantial completion. Secured (direct) loans are prepayable without penalty or premium.
- *Priority.* Negotiated, but typically a junior lien position behind senior project financing such as tax-exempt revenue-based financing. In the case of default leading to bankruptcy, insolvency or liquidation, the loan assumes a position equal to senior debt.

[b]—Loan Guarantees

A TIFIA loan guarantee is a guarantee by the DOT to pay all or part of the principal and/or interest on a loan or other debt obligation of a project sponsor to a private lender. As with secured (direct) loans, terms vary but such loans guaranteed by DOT under TIFIA generally have the following general attributes:

- *Use of Proceeds.* Proceeds of the guaranteed loan must be used for eligible project costs, or to refinance interim construction financing of eligible project costs. This refinancing can occur no later than one year after substantial completion of the project.
- *Amount.* The principal amount of the guarantee may not exceed 33% of the reasonably anticipated eligible project costs.

³ TIFIA defines eligible project costs as those expenses associated with the following activities:

- development phase activities, including planning, feasibility analysis, revenue forecasting, environmental review, permitting, preliminary engineering and design work and other preconstruction activities;
- construction, reconstruction, rehabilitation, replacement and acquisition of real property (including land related to the project and improvements to land), environmental mitigation, construction contingencies and acquisition of equipment; and
- capitalized interest necessary to meet market requirements, reasonably required reserve funds, capital issuance expenses and other carrying costs during construction.

See 23 U.S.C. § 181.

- *Interest Rate.* The rate of the guaranteed loan, subject to DOT consent.
- *Maturity.* The maturity date of the guaranteed loan may be no later than thirty-five years after substantial completion.
- *Repayment and Deferral.* Scheduled payments on the guaranteed loan must begin no later than five years after substantial completion, but deferral is available, at the sole discretion of the DOT, for up to ten years after substantial completion. The prepayment features of a guaranteed loan are subject to negotiation between the project sponsor and the private lender, and also are subject to the consent of the DOT.
- *Priority.* In the case of default leading to bankruptcy, insolvency or liquidation, the loan assumes a position equal to senior debt.

[c]—Standby Lines of Credit

A TIFIA line of credit is a standby line of credit that may be drawn upon to supplement project revenues during the first ten years of project operations beginning on the date of substantial completion. The DOT acts as a lender only when certain conditions are met. Terms of the lines of credit vary and are negotiated directly by the DOT but generally have the following characteristics:

- *Use of Proceeds.* Proceeds must be used to pay debt service on project obligations issued to finance eligible project costs, extraordinary repair and replacement costs, operation and maintenance expenses and/or costs associated with unexpected federal or state environmental restrictions.
- *Amount.* The principal amount may not exceed 33% of the reasonably anticipated eligible project costs.
- *Conditions on Draws.* A maximum of 20% of the total line may be drawn in any one year, but only if net revenues of the project are insufficient to pay the items described above in "Use of Proceeds."
- *Interest Rate.* Equal to or greater than the yield on a thirty-year marketable U.S. treasury security on the date the line of credit is obligated.
- *Availability.* For ten years following substantial completion.
- *Maturity.* No later than thirty-five years after substantial completion.
- *Repayment and Deferral.* Scheduled loan payments must begin no later than five years after substantial completion, but deferral is available, at the sole discretion of the DOT, for up to ten years after substantial completion. Secured (direct) loans are prepayable without penalty or premium.
- *Priority.* Negotiated, but typically a junior lien position behind senior project financing such as tax-exempt revenue-based financing. In the case of default leading to bankruptcy, insolvency or liquidation, the loan assumes a position equal to senior debt.

[3]—Application/Review Process

The TIFIA application and review process first requires that the project sponsor submit a letter of interest. This is followed by a formal application and preliminary credit ratings opinion from a nationally recognized rating

agency. Selection of a project for TIFIA assistance does not by itself mean that the assistance will in fact be furnished. Project sponsors must obtain a record of decision (ROD) of the Federal Highway Administration that the project complies with all federal laws bearing on its approval,⁴ and a final investment-grade rating on the proposed senior debt structure of the project issued by a nationally recognized rating agency. Project sponsors must also negotiate and execute a term sheet⁵ and credit agreement with the DOT. Each fiscal year the DOT publishes in the Federal Register a notice to solicit applications for credit assistance specifying the relevant due dates, the estimated amount of funding available to support TIFIA credit instruments, contact name(s), and other details for that year's application submissions and funding approvals.

Applicants are evaluated by the DOT using the following eight selection criteria.⁶

- *Significance.* The extent to which the project is nationally or regionally significant in terms of generating economic benefits, supporting international commerce, or otherwise enhancing the national transportation system.
- *Creditworthiness.* The creditworthiness of the project, including a determination that any financing for the project has appropriate security features (such as a rate covenant) to ensure repayment.
- *Private Participation.* The extent to which TIFIA assistance would foster innovative public-private partnerships and attract private debt or equity investments.
- *Project Acceleration.* The likelihood that TIFIA assistance would enable the project to proceed at an earlier date than without TIFIA assistance.

⁴ Such laws include title 23, U.S.C. for highway projects, Chapter 53 of title 49, U.S.C. for transit projects, and 49 U.S.C. § 5333(a) for rail projects. See also, *inter alia*, Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d *et. seq.*; the National Environmental Policy Act of 1969, 42 U.S.C. § 4321 *et. seq.*; the Uniform Relocation Assistance and Policies Act of 1970, 42 U.S.C. § 4601 *et. seq.*

⁵ The term sheet represents a contract between the Department of Transportation and the project sponsor (and the lender, if applicable) setting forth key business terms and conditions of a Federal credit instrument. The term sheet represents a legal obligation of budget authority. Within the overall credit assistance limitation of 33% of eligible project costs, the Secretary may consider making future-year or multi-year contingent commitments of budget authority and associated credit assistance for projects temporarily lacking certain requirements or with extended construction periods and financing needs. In such cases, the parties will execute a conditional term sheet resembling the standard term sheet that enables the budget authority, but also specifies the additional actions necessary to trigger subsequent obligations. The conditional term sheet will include fixed dates by which any requirements must be met in order for the unused funding to be obligated. See 49 C.F.R. § 8005(d)(1).

⁶ These criteria are set forth at 49 C.F.R. § 80.15.

- *Use of Technology.* The extent to which the project uses new technologies, including intelligent transportation systems, that enhance project efficiency.
- *Budget Authority.* The amount of budget authority required to fund the TIFIA credit instrument.
- *Environment.* The extent to which the project helps maintain or protect the environment.
- *Reduced Federal Grant Assistance.* The extent to which TIFIA assistance would reduce the need for federal grant assistance.

During the first year of the TIFIA program, Fiscal Year 1999, the eight evaluation criteria were not weighted and were applied equally. However, FHA and DOT officials have publicly stated that review of the evaluation criteria is underway and that some weighting of the evaluation criteria will likely apply for the Fiscal Year 2000 selection process.

[4]—Examples of TIFIA Projects

During Fiscal Year 1999, the first year of the TIFIA program, the DOT received fourteen letters of interest, resulting in seven applications. Six applications were evaluated and five projects were selected. TIFIA assistance included all credit vehicles authorized in the program, including combinations of each type of assistance.

Miami Intermodal Center, Miami, Florida. The Miami Intermodal Center (MIC) project consists of the construction of an integrated multi-modal transportation facility adjacent to Miami International Airport, including a consolidated rental car facility, automated people mover, highway improvements and links to existing and planned transit systems. The project sponsors are the Florida Department of Transportation and the Miami-Dade Aviation Department. Total cost of the project is anticipated to be \$1.349 billion and anticipated completion is April 2005. TIFIA assistance provided to the MIC project includes two direct loans: a state comprehensive enhanced transportation system (SCETS) loan of \$269 million, and a rental car facility (RCF) loan of \$167 million. The SCETS loan is secured by state fuel tax revenues and the RCF loan is secured by rental car fee revenues. The SCETS loan has a maturity of twenty years, and the RCF loan twenty-five years, after substantial completion.

Farley-Penn Station, New York, New York. The Farley-Penn Station project consists of the expansion and capital refurbishment of Penn Station in New York City by incorporating the Farley Post Office into the existing Penn Station. Traffic and pedestrian improvements are also included within the scope of the project. The project sponsors are Amtrak, the U.S. Postal Service and federal, state and city governments. Total cost of the project is anticipated to be \$749 million and anticipated completion is December 2003. TIFIA assistance provided to the project includes a direct junior loan of \$140 million and a \$20 million standby line of credit supporting the senior debt. Both the direct loan and the standby loan are secured by lease payments from retail development in the Farley Building

and Penn Station. The direct loan matures thirty-five years, and the line of credit is available for ten years, after substantial completion.

SR 125, San Diego County, California. The SR 125 project involves the construction of a nine-and-three-tenths mile toll facility as the southern segment of the SR 125. The project is part of a new eleven-and-two-tenths mile limited access corridor connecting San Diego to the U.S.-Mexico border at Otay Mesa. The project sponsors are all private entities, including California Transportation Ventures, Inc., and its investors Parsons Brinckerhoff, Egis Projects and Koch Industries. Total cost of the project is anticipated to be \$397 million and anticipated completion is October 2002. TIFIA assistance provided to the project includes guaranteeing a junior loan in the amount of \$90 million, and a \$37 million standby line of credit supporting the senior debt. Both the loan guarantee and the standby loan are secured by toll revenues. The guaranteed loan guarantee matures thirty-five years, and the line of credit is available for ten years, after substantial completion.

Tren Urbano, San Juan, Puerto Rico. The Tren Urbano project involves the completion of a seventeen kilometer rapid rail system with sixteen stations. The project, once complete, is anticipated to make 100,000 passenger-trips per day during its first year of operations. The project sponsor is the Puerto Rico Highway and Transportation Authority. Total cost of the project is anticipated to be \$1.676 billion and anticipated completion is May 2002. TIFIA assistance is a direct junior loan of \$300 million. The loan is secured by junior liens on the Authority's fuel tax receipts, motor vehicle registration fees and farebox receipts. The loan matures five years after substantial completion, with a balloon payment due in 2007.

Washington Metropolitan Area Transit Authority Capital Program, Washington, D.C. The Washington Metropolitan Area Transit Authority (WMATA) Capital Program project is an acceleration of a twenty-year capital program to maintain service on a 103 mile Metrorail system, including refurbishment and replacement of vehicles and facilities, and other improvements. The project sponsor is WMATA. Total cost of the project is anticipated to be \$600 million and anticipated completion is December 2009. TIFIA assistance is a loan guarantee secured by revenues contributed by Washington, D.C. and participating local governments in Maryland and Virginia as well as gross system revenues. The guaranteed loan matures ten years after substantial completion.

Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$1.4 billion	I-15 Reconstruction reconstruction of I-15 approximately 17 miles of freeway, and includes widening the corridor to include an additional "general purpose" lane	Utah DOT	Design-Build-Maintain.	RFQ/RFP. Best value.	3/97	Kiewit/ Granite/ Washington Group	Completed	Largest Design-Build contract in U.S history, first Design-Build contract in Utah and first Design-Build-Maintain contract for a U.S. highway. Completion accelerated by 10 years over original program. Completed ahead of contract schedule and under budget.
\$1.2 billion	I-25 Road/Light Rail Project (T-REX) 19.1 miles of new double-tracked light rail transit and 16.6 miles of highway improvements to I-25 and I-225.	Colorado DOT/RTD	Design-Build.	RFQ/RFP. Best value.	5/01	Kiewit / Parsons Transportation Group	Under construction	First Design-Build contract in country combining major highway and transit elements. Completion expected 14 years ahead of plan. Proposal price below Agency's upset price.

Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$1.1 billion	SH 130 Turnpike 89 miles of "greenfield" turnpike from SH195 in Georgetown to IH10 at Sequin.	Texas Turnpike Authority	Exclusive Development Agreement. Design-Build-Maintain-Finance.	RFQ/RFP. Best value.	Exp. 8/02	Fluor Daniels	Developer selected 4/02. Award Pending	First Design-Build type highway contract in Texas. Completion expected 12 years ahead of plan. Cost shown is engineer's estimate. Actual proposal prices remain confidential until contract executed.
\$1.1 billion	Hudson-Bergen Light Rail 20-mile LRT along Northern New Jersey's Hudson River waterfront	NJ Transit	Design-Build-Operate-Maintain-Finance.	RFQ/RFP. Best value.	10/96	Washington Group/ Itochu/ Perini/ Slattery	Completed	First DBOM transit contract in U.S. Completion accelerated 11 years ahead of plan. Completed ahead of contract schedule and under original budget due to value engineering.



Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$813 million	San Joaquin Hills Toll Road 15 mile, six-lane, divided, limited-access highway	Trans. Corridor Agencies	Design-Build-Finance.	IFB. Low present value.	9/91	Kiewit/Granite	Completed	First Design-Build highway contract commenced in U.S. and first U.S. transportation project financed with federal line of credit. Completion accelerated 18 years ahead of plan. 1% cost growth over contract price, despite 14 month injunction mid-construction. Completed ahead of contract schedule.
\$712 million	Alameda Corridor 10-mile, 33' deep trench for freight rail grade separation, extending from north of State Route 91 to near 25th Street in Los Angeles	Alameda Corridor Transportation Authority	Design-Build.	RFQ/RFP. Lowest ultimate cost. Limited negotiations.	11/98	Tudor-Saliba/O & G Industries/PTG/HNTB	Completed	First U.S. transportation project financed with federal loan. Contract price less than engineer's estimate. Project completed ahead of schedule and under budget.

Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$678 million	Eastern Toll Road 29 mile, four-lane, divided, limited-access highway	Trans. Corridor Agencies	Design-Build.	IFB with possibility of BAFO's. Low present value.	6/95	Flatiron / Wayss & Freitag / Sukut / Obayashi	Completed	Project accelerated 20 years. Bid price well below engineer's estimate. Completed under engineer's estimate and ahead of schedule.
\$645 million	Foothill-South 16-mile project connecting Rancho Santa Margarita with I-5 in San Clemente	TCA	Design-Build.	RFP. Best value for proposals with prices w/in 5% of low price.	7/98	Flatiron / Wayss & Freitag / Sukut / Fluor Daniel	Awaiting environmental approval	Phase 1 Work completed; Phase 2 price to be determined based on escalated unit prices and updated quantities after environmental approval received.
\$604 million	Camden-Trenton Light Rail 34-mile diesel LRT system connecting Camden and Trenton	NJ Transit	Design-Build-Operate-Maintain.	RFQ/IFB. Price and other factors.	6/99	Bechtel / Bombardier / Conti / LB Foster	Under construction	Engineer's estimate confidential. Cost and schedule status to be verified.



Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$580 million	Tacoma Narrows Bridge New suspension bridge over Puget Sound connecting Tacoma and Pierce County	Washington State DOT	Development Agreement. Design-Build.	Call for projects. Qualifications based selection. Negotiation of all terms.	Exp. 9/02	Bechtel Infrastructure Corp./Kiewit Pacific Co.	Awaiting GO bond issue	First new suspension bridge in U.S. in 30 years and first major Design-Build transportation contract in Washington State. Design-Build contract price under negotiation and subject to DOT satisfaction. Completion expected to be accelerated by 15 years.
\$480 million	Las Vegas Monorail Extensions Northerly and westerly extensions of the Strip Corridor Monorail to serve downtown Las Vegas and to reach west side of Strip Corridor	Las Vegas Monorail Company	Franchise Agreement. Design-Build-Operate-Maintain-Finance.	RFQ. Qualifications based selection of master systems developer. Sole source price negotiation.	Exp. 7/03	Granite / Bombardier	Franchise awarded. Negotiation of Design-Build contract underway.	First transit project to match federal new-start funds with project revenues for construction financing. If NTP target date met, project will be accelerated 10 years. DBOM price under negotiation is less than engineer's estimate.

Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$390 million	Union County LRT 5.8 mile LRT connecting Midtown Elizabeth, Manhattan Ferry Terminal and Newark Airport	New Jersey Transit	Design-Build-Operate-Finance	Unsolicited proposal under New Jersey Public Private Act		Washington Group International	Letter of Intent executed. WGI supporting EIS, engineering and finance plan development	First project under New Jersey's Public-Private Act and first federal rail transit project to result from unsolicited proposal.
\$385 million	Route 3 North Widen 21 miles of existing two-lane highway, most congested corridor in state after Central Artery	Massachusetts Highway Department	Design-Build-Maintain-Finance.	RFQ/RFP. Best value.	8/00	Modern Continental/Roy Jorgenson	Under construction	First Design-Build highway contract and first "subject to appropriations" financing in Massachusetts. Project accelerated 12 years ahead of original program, in middle of Central Artery environment.
\$343 million	Las Vegas Monorail 4-mile fixed guideway system serving world's largest convention center and 9 major resorts	MGM MIRAGE and Park Place Entertainment	Franchise Agreement. Design-Build-Operate-Maintain-Finance.	Sole source negotiation.	9/00	Bombardier/Granite	Under construction	First privately developed urban transit system in U.S. Sole source price negotiated to owner's satisfaction. To date, project on schedule and below budget.

Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$330 million	Legacy Parkway 19 miles four-lane, limited-access, divided highway	Utah DOT	Design-Build.	RFQ/RFP. Best value.	1/01	Fluor Daniel/Ames/Ed Kraemer	Construction limited pending resolution of environmental litigation.	Contract price close to engineer's estimate.
\$323 million	Rt. 895 Connector - Pocahontas Parkway 8.8-mile, four-lane road connecting I-95 with Interstate 295, including new James River bridge crossing	Virginia DOT	Development Agreement. Design-Build-Finance.	Unsolicited proposal. Sole source price negotiation.	7/98	Fluor Daniel/Washington Group	Under construction	First project under Virginia's Public-Private Act and state's first Design-Build contract. Sole source price negotiated to owner's satisfaction. Current schedule reflects 5 month delay covered by liquidated damages. Within budget.

Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$295 million	New Mexico 44 Highway Widen 125-mile highway from two to four lanes	New Mexico State Highway and Transportation Department	Design-Construction Management at Risk – Long Term Warranty.	RFQ/RFP.	9/98	Koch Materials/ Flatiron / CH2M Hill	Under construction	First long-term highway performance warranty in U.S. and first innovative highway contract in New Mexico. To date, on schedule and under budget.
\$291 million	Hiawatha Light Rail 11.6-mile line extending from downtown Minneapolis to the Minneapolis-St. Paul Airport	Minnesota DOT	Design-Build.	Request for Preliminary Proposals/ Final Proposals. Best Value.	9/00	Granite / C.S. McCrossan	Under construction	First design-build transportation contract in Minnesota. To date, on schedule and within budget.
\$267 million	Arroyo Seco Blue Line LRT Segment 13.7 mile light rail project from Union Station in downtown Los Angeles to Pasadena	LA to Pasadena Metro Blue Line Construction Authority	Design-Build.	RFQ/RFP. Best Value.	4/00	Kiewit / Washington Group	Under construction	Project accelerated 8 years. To date, on schedule and within budget.

Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$257 million	SR 125 Toll Road & Connector 11 mile, four-lane highway with the south 9.5 miles operated as a toll road	Caltrans	Franchise Agreement. Design-Build-Maintain-Finance.	Call for projects. Qualifications based developer selection. RFP for Design-Build. Best value.	Ant. 10/02	California Trans. Ventures / Washington Group	Awaiting financing	Project unscheduled prior to franchise. Contract price under Engineer's estimate.
\$233 million	E-470 Toll Beltway, Seg. 4 final 14 miles of a total 45 mile beltway around Denver, connecting to Denver International Airport	E-470 Public Highway Auth.	Design-Build-Finance.	RFP.	1/00	Washington Group / Kiewit	Under construction	To date, on schedule and within budget.
\$218 million	Reno ReTRAC Project 2.25 miles of depressed open trench railway along existing Union Pacific Railroad right of way	City of Reno, NV	Design-Build	2 step RFP. Best value.	Ant. 8/02	4 teams competing.	Under procurement	First public sector design-build contract in Nevada.

Public-Private Initiatives: Projects in Implementation Phase

Contract Amount	Project Name	Owner	Nature of Contract	Procurement and Selection Method	NTP	Lead Contractor	Status	Comments
\$191 million	Atlantic City - Brigantine Tunnel 2.5-mile route Includes a 2,000-foot cut-and-cover tunnel, 10 new bridges and 2.3 miles of new highway	New Jersey DOT	Design-Build.	RFP. Low Bid.	10/97	Yonkers / Granite	Completed	First design-build tunnel project in U.S. Contract price less than engineer's estimate. Project completed 4 months behind schedule.
\$130 million	CPTC SR-91 Express Lanes four lane automated high occupancy / toll lane project	Caltrans	Franchise Agreement. Design-Build-Operate-Maintain-Finance.	Call for projects. Qualifications based developer selection. Sole source Design-Build negotiation.	7/93	Level 3 / Cofiroute / Granite	Completed	First privately financed highway in United States. Contract price less than engineer's estimate. Completed for contract price and ahead of schedule.